

08/913430

NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING
NUCLEOTIDE SEQUENCE AND/ AMINO ACID SEQUENCE DISCLOSURES

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 CFR 1.821 - 1.825 for the following reason(s):

1. This application clearly fails to comply with the requirements of 37 CFR 1.821 - 1.825. Applicant's attention is directed to these regulations, published at 1114 OG 29, May 15, 1990 and at 55 FR 18230, May 1, 1990.

2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 CFR 1.821(c).

3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 CFR 1.821(e).

4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 CFR 1.822 and/or 1.823, as indicated on the attached copy of the marked-up "Raw Sequence Listing."

5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A substitute computer readable form must be submitted as required by 37 CFR 1.825(d).

6. The paper copy of the "Sequence Listing" is not the same as the computer readable form of the "Sequence Listing" as required by 37 CFR 1.821(e).

7.

Other: _____

Applicant must provide:

An initial or substitute computer readable form (CRF) copy of the "Sequence Listing"

An initial or substitute paper copy of the "Sequence Listing", as well as an amendment directing its entry into the specification

A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 CFR 1.821(e) or 1.821(f) or 1.821(g) or 1.825(b) or 1.825(d)

For questions regarding compliance with these requirements, please contact:

For Rules Interpretation, call (703) 308-1123

For CRF submission help, call (703) 308-4212

For PatentIn software help, call (703) 557-0400

Please return a copy of this notice with your response.

Raw Sequence Listing Error Summary

<u>ERROR DETECTED</u>	<u>SUGGESTED</u>	<u>CORRECTION</u>
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SERIAL NUMBER: 08/913,430A

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 Wrapped Nucleics The number/text at the end of each line "wrapped" down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".

- 2 Wrapped Aminos The amino acid number/text at the end of each line "wrapped" down to the next line.
This may occur if your file was retrieved in a word processor after creating it.
Please adjust your right margin to .3, as this will prevent "wrapping".

- 3 Incorrect Line Length The rules require that a line not exceed 72 characters in length. This includes spaces.

- 4 Misaligned Amino Acid Numbering The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs between the numbering. It is recommended to delete any tabs and use spacing between the numbers.

- 5 Non-ASCII This file was not saved in ASCII (DOS) text, as required by the Sequence Rules.
Please ensure your subsequent submission is saved in ASCII text so that it can be processed.

- 6 Variable Length Sequence(s) _____ contain n's or Xaa's which represented more than one residue.
As per the rules, each n or Xaa can only represent a single residue.
Please present the maximum number of each residue having variable length and indicate in the (ix) feature section that some may be missing.

- 7 PatentIn ver. 2.0 "bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequence(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence.

- 8 Skipped Sequences (OLD RULES) Sequence(s) _____ missing. If intentional, please use the following format for each skipped sequence:
(2) INFORMATION FOR SEQ ID NO:X:
(i) SEQUENCE CHARACTERISTICS:(Do not insert any headings under "SEQUENCE CHARACTERISTICS")
(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X:
This sequence is intentionally skipped

Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).

- 9 Skipped Sequences (NEW RULES) Sequence(s) _____ missing. If intentional, please use the following format for each skipped sequence.
<210> sequence id number
<400> sequence id number
000

- 10 Use of n's or Xaa's (NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
Use of <220> to <223> is MANDATORY if n's or Xaa's are present.
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

- 11 Use of <213>Organism (NEW RULES) Sequence(s) _____ are missing this mandatory field or its response.

- 12 Use of <220>Feature (NEW RULES) Sequence(s) _____ are missing the <220>Feature and associated headings.
Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial" or "Unknown"
Please explain source of genetic material in <220> to <223> section.
(See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules)

- 13 PatentIn ver. 2.0 "bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other means to copy file to floppy disk.

PAGE: 1

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/913,430ADATE: 05/14/1999
TIME: 14:10:17

Input Set: H913430A.RAW

This Raw Listing contains the General Information Section and up to first 5 pages.

PP 5314

Does Not Comply
Corrected Diskette Needed

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1 <110> APPLICANT: Walker, John
2           Lee, Rogan
3           Dougherty, Stephen W.
4 <120> TITLE OF INVENTION: Antigen Composition Against Mycoplasma
5 <130> FILE REFERENCE: U-011415-0
6 <140> CURRENT APPLICATION NUMBER: US/08/913,430A
7 <141> CURRENT FILING DATE: 1997-12-09
8 <150> EARLIER APPLICATION NUMBER: PCT/AU96/00149
9 <151> EARLIER FILING DATE: 1996-03-15
10 <150> EARLIER APPLICATION NUMBER: PN 1789
11 <151> EARLIER FILING DATE: 1995-03-16
12 <160> NUMBER OF SEQ ID NOS: 18
13 <170> SOFTWARE: PatentIn Ver. 2.0 - beta
14 <210> SEQ ID NO 1
15 <211> LENGTH: 1782
16 <212> TYPE: DNA
17 <213> ORGANISM: Mycoplasma hyopneumoniae
18 <400> SEQUENCE: 1
19 atgaaaaaaaaa tgccactata ccagaggaaa gagcagtata taaaataatt aaaattacat 60
20 tttcttcatt tgcgccagaa ttttaagaa ttgtacatt aaaaagtaga acaaaaagttt 120
21 ttaatgtaaa cattagcgca atcctaaga aaaaattaaa agtttatct atttttttta 180
22 atcgaaaatcc aaccaggcat aaatcttgc cagttttat caagtcggta ttttttcatt 240
23 atttctacta aaatattatt tgaatttgca tttccataa tctaaaattt tacattttt 300
24 tataacaatt tttaaaaatt actctttaat ttatagtatt ttttattttt ttagtctaaa 360
25 ttataaaaatt atcttgaatt ttatttgaat ttttataatt tagtactaaa aaatacaaat 420
26 attttttcctt attctaagaa aaattcattt tttaaaaaaa attgattttt atagtataat 480
27 ttgtttgtat aattgaatta acttgatttgg aagggaaaca aaatgaaaaa aatgctttaga 540
28 aaaaaattct ttttatttttgc gtttgcattt gtttgcattt ttttgcattt 600
29 gttgcagcag gttgtggaca gacagaatca gtttcaattt ctgattctaa accacaagcc 660
30 gagacgttaa aacataaaagt aagtaatgtat tcatttcgaa tagcaataac cgatccggat 720
31 aatcctcgat gaatttagtgc ccaaaaagat attatttctt atgttgcattt aacagaggca 780
32 gcaacttcaa caattacaaa aaaccaggat gcacaaaata actgactcac tcagcaagct 840
33 aatttaagcc cagcgccaaa aggattttt attgccccctg aaaatggaag tggagttgga 900
34 actgctgtta atacaattgc tgataaaagga attccgattt ttgccttatga tcgactaattt 960
35 actggatctg ataaaatatga ttggatgtt tcttttgcattt atgaaaaagt tggatgtt 1020
36 caaggtcttt cacttgctgc gggtctttaa ggaaaagaag atggatgtt tggatgtt 1080
37 gatcaaatgtt atgaaatatctt aaaaatcacat atgcccccaag agacaatttc tttttataca 1140
38 atcgccgggtt cccaaatgtt taataattcc caatattttt ataatggatgc aatgaaatgtt 1200
39 cttaaagaat taatgaaaaat ttgcaaaaat aaaaataatttgc atttatctcc tgaaggcgaa 1260
40 aatgctgtttt atgtcccagg atgaaatttgc ggaactgcccgtt gtcacaaatgtt 1320
41 ctaacaatttta acaaagatcc agcaggttgtt aataaaaatca aagctgttgg ttcaaaaacca 1380
42 gcttcttattt tcaaaggatt tcttgccccca aatgatggaa tggccgaaca agcaatcacc 1440
43 aaattaaaaac ttgaagggtt tgataccaa aaaaatcttttgc taaactcgtca agattataat 1500
44 gataaagcca aaacttttat caaagacggc gatcaaaaata tgacaatttta taaacctgtat 1560

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RAW SEQUENCE LISTING
PATENT APPLICATION US/08/913,430ADATE: 05/14/1999
TIME: 14:10:17

Input Set: H913430A.RAW

45 aaagtttag gaaaagttgc tggtgaagtt ctccgggtt taattgcaaa gaaaaataaa 1620
 46 gcatctagat cagaagtgcg aaacgaacta aaagcaaaac taccaaatat ttcatttaaa 1680
 47 tatgataatc aaacatataa agtacaaggt aaaaatatta atacaatttt agtaagtcca 1740
 48 gtaattgtta caaaagctaa tggtgataat cctgatgcct aa 1782
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 50 <211> LENGTH: 419
 51 <212> TYPE: PRT
 52 <213> ORGANISM: Mycoplasma hyopneumoniae
 53 <400> SEQUENCE: 2
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 5 10 15
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 20 25 30
 Gln Thr Glu Ser Gly Ser Thr Ser Asp Ser Lys Pro Gln Ala Glu Thr
 35 40 45
 Leu Lys His Lys Val Ser Asn Asp Ser Ile Arg Ile Ala Leu Thr Asp
 50 55 60
 Pro Asp Asn Pro Arg Trp Ile Ser Ala Gln Lys Asp Ile Ile Ser Tyr
 65 70 75 80
 Val Asp Glu Thr Glu Ala Ala Thr Ser Thr Ile Thr Lys Asn Gln Asp
 85 90 95
 Ala Gln Asn Asn Trp Leu Thr Gln Gln Ala Asn Leu Ser Pro Ala Pro
 100 105 110
 Lys Gly Phe Ile Ile Ala Pro Glu Asn Gly Ser Gly Val Gly Thr Ala
 115 120 125
 Val Asn Thr Ile Ala Asp Lys Gly Ile Pro Ile Val Ala Tyr Asp Arg
 130 135 140
 Leu Ile Thr Gly Ser Asp Lys Tyr Asp Trp Tyr Val Ser Phe Asp Asn
 145 150 155 160
 Glu Lys Val Gly Glu Leu Gln Gly Leu Ser Leu Ala Ala Gly Leu Leu
 165 170 175
 Gly Lys Glu Asp Gly Ala Phe Asp Ser Ile Asp Gln Met Asn Glu Tyr
 180 185 190
 Leu Lys Ser His Met Pro Gln Glu Thr Ile Ser Phe Tyr Thr Ile Ala
 195 200 205
 Gly Ser Gln Asp Asp Asn Asn Ser Gln Tyr Phe Tyr Asn Gly Ala Met
 210 215 220
 Lys Val Leu Lys Glu Leu Met Lys Asn Ser Gln Asn Lys Ile Ile Asp
 225 230 235 240
 Leu Ser Pro Glu Gly Glu Asn Ala Val Tyr Val Pro Gly Trp Asn Tyr
 245 250 255
 Gly Thr Ala Gly Gln Arg Ile Gln Ser Phe Leu Thr Ile Asn Lys Asp
 260 265 270
 Pro Ala Gly Gly Asn Lys Ile Lys Ala Val Gly Ser Lys Pro Ala Ser
 275 280 285
 Ile Phe Lys Gly Phe Leu Ala Pro Asn Asp Gly Met Ala Glu Gln Ala
 290 295 300
 Ile Thr Lys Leu Lys Leu Glu Gly Phe Asp Thr Gln Lys Ile Phe Val
 305 310 315 320
 Thr Arg Gln Asp Tyr Asn Asp Lys Ala Lys Thr Phe Ile Lys Asp Gly

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RAW SEQUENCE LISTING
PATENT APPLICATION US/08/913,430ADATE: 05/14/1999
TIME: 14:10:17

Input Set: H913430A.RAW

95 325 330 335
 96 Asp Gln Asn Met Thr Ile Tyr Lys Pro Asp Lys Val Leu Gly Lys Val
 97 340 345 350
 98 Ala Val Glu Val Leu Arg Val Leu Ile Ala Lys Lys Asn Lys Ala Ser
 99 355 360 365
 100 Arg Ser Glu Val Glu Asn Glu Leu Lys Ala Lys Leu Pro Asn Ile Ser
 101 370 375 380
 102 Phe Lys Tyr Asp Asn Gln Thr Tyr Lys Val Gln Gly Lys Asn Ile Asn
 103 385 390 395 400
 104 Thr Ile Leu Val Ser Pro Val Ile Val Thr Lys Ala Asn Val Asp Asn
 105 405 410 415
 106 Pro Asp Ala
 107 <210> SEQ ID NO 3
 108 <211> LENGTH: 25
 109 <212> TYPE: PRT
 110 <213> ORGANISM: Mycoplasma hyopneumoniae
 111 <400> SEQUENCE: 3
 W--> 112 Ala Gly Xaa Gly Gln Thr Glu Ser Gly Ser Thr Ser Asp Ser Lys Pro
 113 5 10 15
 114 Gln Ala Glu Thr Leu Lys His Lys Val
 115 20 25
 116 <210> SEQ ID NO 4
 117 <211> LENGTH: 29
 118 <212> TYPE: PRT
 119 <213> ORGANISM: Mycoplasma hyopneumoniae
 120 <400> SEQUENCE: 4
 121 Thr Ile Tyr Lys Pro Asp Lys Val Leu Gly Lys Val Ala Val Glu Val
 122 5 10 15
 123 Leu Arg Val Leu Ile Ala Lys Lys Asn Lys Ala Ser Arg
 124 20 25
 125 <210> SEQ ID NO 5
 126 <211> LENGTH: 16
 127 <212> TYPE: PRT
 128 <213> ORGANISM: Mycoplasma hyopneumoniae
 129 <400> SEQUENCE: 5
 130 Ala Glu Gln Ala Ile Thr Lys Leu Lys Leu Glu Gly Phe Asp Thr Gln
 131 5 10 15
 132 <210> SEQ ID NO 6
 133 <211> LENGTH: 14
 134 <212> TYPE: PRT
 135 <213> ORGANISM: Mycoplasma hyopneumoniae
 136 <400> SEQUENCE: 6
 137 Lys Asn Ser Gln Asn Lys Ile Ile Asp Leu Ser Pro Glu Gly
 138 5 10
 139 <210> SEQ ID NO 7
 140 <211> LENGTH: 14
 141 <212> TYPE: PRT
 142 <213> ORGANISM: Mycoplasma hyopneumoniae
 143 <400> SEQUENCE: 7
 W--> 144 Ala Gly Xaa Trp Ala Lys Glu Thr Thr Lys Glu Glu Lys Ser
 145 5 10

see item 10 on Curr Summary sheet

jim
10

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RAW SEQUENCE LISTING
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DATE: 05/14/1999
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Input Set: H913430A.RAW

145 <210> SEQ ID NO 8
146 <211> LENGTH: 10
147 <212> TYPE: PRT
148 <213> ORGANISM: Mycoplasma hyopneumoniae
149 <400> SEQUENCE: 8
150 Ala Trp Val Thr Ala Asp Gly Thr Val Asn
151 5 10
152
153 <210> SEQ ID NO 9
154 <211> LENGTH: 21
155 <212> TYPE: PRT
156 <213> ORGANISM: Mycoplasma hyopneumoniae
157 <400> SEQUENCE: 9
158 Ala Ile Val Thr Ala Asp Gly Thr Val Asn Asp Asn Lys Pro Asn Gln
159 5 10 15
160 Trp Val Arg Lys Tyr
161 20
162 <210> SEQ ID NO 10
163 <211> LENGTH: 15
164 <212> TYPE: PRT
165 <213> ORGANISM: Mycoplasma hyopneumoniae
166 <220> FEATURE:
167 <221> NAME/KEY: VARIANT
168 <222> LOCATION: (12)
169 <223> OTHER INFORMATION: Residue may be L
170 <220> FEATURE:
171 <221> NAME/KEY: VARIANT *met is at location 12*
172 <222> LOCATION: (13) *use "Xaa" and explain if met or valine can be at that location.*
173 <223> OTHER INFORMATION: Residue may be V
174 <400> SEQUENCE: 10
175 Met Lys Leu Ala Lys Leu Leu Lys Gly Phe Xaa Asn Met Ile Lys
176 5 10 15
177 <210> SEQ ID NO 11
178 <211> LENGTH: 15
179 <212> TYPE: PRT
180 <213> ORGANISM: Mycoplasma hyopneumoniae
181 <220> FEATURE:
182 <221> NAME/KEY: VARIANT
183 <222> LOCATION: (4)
184 <223> OTHER INFORMATION: Residue may be I
185 <220> FEATURE:
186 <221> NAME/KEY: VARIANT
187 <222> LOCATION: (5)
188 <223> OTHER INFORMATION: Residue may be E
189 <220> FEATURE:
190 <221> NAME/KEY: VARIANT
191 <222> LOCATION: (7)
192 <223> OTHER INFORMATION: Residue may be A
193 <220> FEATURE:
194 <221> NAME/KEY: VARIANT

? Asn is a
It can only
itself. By
met is at location 12
use "Xaa" and explain if met or valine can be at that location.
Xaa
This yields a
same error or no
use "Xaa" or
Igla
C2207
section

PAGE: 5

RAW SEQUENCE LISTING
PATENT APPLICATION US/08/913,430ADATE: 05/14/1999
TIME: 14:10:17

Input Set: H913430A.RAW

195 <222> LOCATION: (11) *use Xaa and epsilon*
 196 <223> OTHER INFORMATION: Residue may be A
 197 <220> FEATURE:
 198 <221> NAME/KEY: VARIANT
 199 <222> LOCATION: (13)
 200 <223> OTHER INFORMATION: Residue may be N
 201 <400> SEQUENCE: 11
item 10 on Env summary sheet
 W--> 202 Ala Asp Pro Phe Arg Tyr Val Pro Gln Gly Gln Xaa Met Val Gly
 203 5 . 10 . 15
 204 <210> SEQ ID NO 12
 205 <211> LENGTH: 18
 206 <212> TYPE: PRT
 207 <213> ORGANISM: Mycoplasma hyopneumoniae
 208 <400> SEQUENCE: 12 *item 10*
 W--> 209 Ala Gly Xaa Leu Gln Lys Asn Ser Leu Leu Glu Glu Val Trp Tyr Leu
 210 5 . 10 . 15
 211 Ala Leu
 212 <210> SEQ ID NO 13
 213 <211> LENGTH: 20
 214 <212> TYPE: PRT
 215 <213> ORGANISM: Mycoplasma hyopneumoniae
 216 <400> SEQUENCE: 13
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 218 5 . 10 . 15
 219 Ala His Glu Leu
 220 20
 221 <210> SEQ ID NO 14
 222 <211> LENGTH: 12
 223 <212> TYPE: PRT
 224 <213> ORGANISM: Mycoplasma hyopneumoniae
 225 <400> SEQUENCE: 14
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 227 5 . 10
 228 <210> SEQ ID NO 15
 229 <211> LENGTH: 19
 230 <212> TYPE: PRT
 231 <213> ORGANISM: Mycoplasma hyopneumoniae *item 10*
 232 <400> SEQUENCE: 15
 W--> 233 Leu Leu Lys Ala Glu Xaa Asn Lys Xaa Ile Glu Glu Ile Asn Thr Xaa
 234 5 . 10 . 15
 235 Leu Asp Asn
 236 <210> SEQ ID NO 16
 237 <211> LENGTH: 23
 238 <212> TYPE: DNA
 239 <213> ORGANISM: Mycoplasma hyopneumoniae
 240 <220> FEATURE:
 241 <221> NAME/KEY: modified_base
 242 <222> LOCATION: (3)
 243 <223> OTHER INFORMATION: primer sequence with modified base: inosine ("i")
 244 <220> FEATURE:

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

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VERIFICATION SUMMARY
PATENT APPLICATION US/08/913,430A

DATE: 05/14/1999

TIME: 14:10:17

Input Set: H913430A.RAW

Line ? Error/Warning

Original Text

112 W "N" or "Xaa" used: Feature required
144 W "N" or "Xaa" used: Feature required
175 W "N" or "Xaa" used: Feature required
202 W "N" or "Xaa" used: Feature required
209 W "N" or "Xaa" used: Feature required
233 W "N" or "Xaa" used: Feature required
249 W "N" or "Xaa" used: Feature required
267 W "N" or "Xaa" used: Feature required
277 W "N" or "Xaa" used: Feature required

Ala Gly Xaa Gly Gln Thr Glu Ser Gly Ser T
Ala Gly Xaa Trp Ala Lys Glu Thr Thr Lys G
Met Lys Leu Ala Lys Leu Leu Lys Gly Phe X
Ala Asp Pro Phe Arg Tyr Val Pro Gln Gly G
Ala Gly Xaa Leu Gln Lys Asn Ser Leu Leu G
Leu Leu Lys Ala Glu Xaa Asn Lys Xaa Ile G
acnaaacgacg agaagccnca ggc
tttnagcttng tgatngcctg ctc
agggtcgatga tcttccancc